

State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State

[Proposed for Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California]

STATE WATER RESOURCES CONTROL BOARD

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I.	Introduction	1			
II.	Wetland Definition	1			
III.	Wetland Delineation	<u>23</u>			
IV.	Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State	e 2 3			
A.	Project Application Submittal	3 <u>4</u>			
B.	Permitting Authority Review and Approval of Applications for Individual Orders	6 <u>8</u>			
C.	General Orders	9 10			
D.	Activities and Areas Excluded from the Application Procedures for Regulation of Discharg Dredged or Fill Material to Waters of the State	-			
V.	Definitions	. 12 <u>13</u>			
Appendi	ix A: State Supplemental Dredged <u>Dredge</u> or Fill Guidelines	. 15 <u>16</u>			
Subpart A – General					
Subpart B – Compliance with Guidelines					
Subpa	art E- <u></u> Potential Impacts on Special Aquatic Sites	18			
Subpart H – Actions to Minimize Adverse Effects					
Subpa	Subpart J – Compensatory Mitigation for Losses of Aquatic Resources				

Procedures for Discharges of Dredged or Fill Materials into Waters of the State

I. Introduction

The mission of the State Water Resources Control Board and the regional water quality control boards Regional Water Quality Control Boards (Water Boards) includes the preservation, enhancement, and restoration of the quality of California's water resources for the protection of the environment and all beneficial uses for the benefit of present and future generations. In accordance with the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.), the Water Boards are authorized to regulate discharges of waste that may affect the quality of waters of the state. As described below, waters of the state include some, but not all, features that are defined as wetlands, as well as other features, including the ocean, lakes, and rivers. These wetlands provide environmental and economic benefits to the people of this state, including flood and storm water control, surface and ground water supply, fish and wildlife habitat, erosion control, pollution treatment, nutrient cycling, and public enjoyment. Wetlands ameliorate the effects of global climate change by providing floodwater storage, sequestering carbon, and maintaining vulnerable plant and animal communities. Many of these invaluable areas statewide have been lost to fill and development. Presently, wetlands are threatened by impacts from increasing population growth, land development, sea level rise, and climate change. These Procedures for the Discharges of Dredged or Fill Materials to Waters of the State (Procedures) conform to Executive Order W-59-93, commonly referred to as California's "no net loss" policy for wetlands. In accordance with Executive Order W-59-93, the Policy ensures Procedures ensure that the Water Boards' regulation of dredged or fill activities will be conducted in a manner "to ensure no overall net loss and long-term net gain in the quantity, quality, and permanence of wetlands acreage and values..." The Water Boards are committed to increasing the quantity, quality, and diversity of wetlands that qualify as waters of the state. These Procedures contain a wetland definition in section II and wetland delineation procedures in section

III, both of which apply to all Water Board programs. The wetland definition encompasses the full range of wetland types commonly recognized in California, including some features not protected under federal law, and reflects current scientific understanding of the formation and functioning of wetlands. The wetland definition is not intended to be jurisdictional — not all features that qualify as wetlands are waters of the state. These Procedures also include procedures for the review and approval of activities that could result in the discharge of dredged or fill material to any waters of the state in section IV. The dredged or fill procedures Procedures include elements of the Clean Water Act Section 404(b)(1) Guidelines, thereby bringing uniformity to Water Boards' regulation of discharges of dredged or fill material to all waters of the state.

II. Wetland Definition

The following definition of wetlands is intended to inform the public about the types of features that qualify as wetlands, and therefore may also warrant protection as waters of the state. It is important to note that the definition of wetlands includes some features that may not be protected as waters of the state. The Water Code defines "waters of the state" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." All features that are protected as "waters of the United States" under federal law are necessarily also waters of the state, but the Water Boards have not developed a complete list or categorical descriptions of all other features that qualify as waters of the state. Therefore, in some cases, the Water Boards must determine whether a particular feature is a water of the state on a case-by-case basis. The Water Boards will continue to determine, on a case-by-case basis, whether a particular feature that meets the definition of wetlands also qualifies as a water of the state. The definition of wetland does not modify or expand the jurisdiction or otherwise affect the statutory or regulatory authorities of the Water Boards. The Water Boards define an area as wetland as follows:

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.
 - The Water Boards may consider a wetland, as defined above, to be a water of the state on a case-by-case basis. If uncertain whether a wetland as defined above is a water of the state, project proponents are strongly encouraged to contact the Water Boards for assistance prior to submitting an application for dredged or fill projects. Code defines "waters of the state" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." The following wetlands are waters of the state:
 - 1. Natural wetlands,
 - 2. Wetlands created by modification of a water of the state,1
 - 3. Wetlands that meet current or historic definitions of "waters of the United States," and
 - 4. Artificial wetlands³ that meet any of the following criteria:
 - a. Approved by an agency as mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
 - c. Resulted from historic human activity and has become a relatively permanent part of the natural landscape;
 - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed and is currently used and maintained primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy another one of the above criteria):
 - . Industrial or municipal wastewater treatment or disposal,
 - ii. Settling of sediment,
 - iii. Storm water detention, infiltration, or treatment,
 - iv. Agricultural crop irrigation or stock watering,

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^{1 &}quot;Created by modification of a water of the state" means that the wetland that is being evaluated must have been directly converted from a water of the state, and does not include a situation where the water of the state was completely eliminated.

² This includes features that have been determined by the U.S. Environmental Protection Agency or the U.S. Army Corps of Engineers to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in a preliminary jurisdictional determination upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S."

³ Artificial wetlands are wetlands that result from human activity.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

72 <u>v. Fire suppression.</u>
 73 <u>vi. Cooling water.</u>
 74 <u>vii. Active surface mining – even if the site is managed for interim wetlands functions and values, or</u>
 76 viii. Log storage.

If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

III. Wetland Delineation

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The permitting authority shall rely on any wetland area delineation approved from a final aquatic resource report, with a preliminary or approved jurisdictional determination issued by the United States Army Corps of Engineers (Corps) for the purposes of determining the extent of wetland waters of the U.S. A delineation of non-federal wetland areas potentially impacted by the project shall be performed using the methods described in the three federal documents listed below (collectively referred to as "1987 Manual and Supplements") to determine whether the area meets the state definition of a wetland as defined above. As described in the 1987 Manual and Supplements, an area "lacks vegetation" if it has less than 5 percent areal coverage of plants at the peak of the growing season. The methods shall be modified only to allow for the fact that the lack of vegetation does not preclude the determination of such an area that meets the definition of wetland. Terms as defined in these Procedures shall be used if there is conflict with terms in the 1987 Manual and Supplements.

- Environmental Laboratory. 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center).

IV. Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State

The purpose of this section is to establish application procedures for discharges of dredged or fill material to waters of the state, which includes both waters of the U.S. and non-federal waters of the state. This section supplements existing state requirements for discharges of dredged or fill material to waters of the U.S. ¹⁴ These Procedures include Appendix A, which contains relevant portions of the U.S. EPA's

⁴⁴ California Code of Regulations, title 23, sections 3830-3869 (state's Clean Water Act (CWA) section 401 (33 USC § 1341) water quality certification program)

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- 107 Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill Material" 25
- 108 (Guidelines), 1980, with minor modifications to make them applicable to the state dredged or fill program
- 109 (hereafter State Supplemental Dredged Dredge or Fill Guidelines). This section applies to all
- applications for discharges of dredged or fill material to waters of the state submitted after [insert the
- 111 effective date of the Plan Amendment].

112 Project Application Submittal for Individual Orders

- 113 Applicants Unless excluded by Section IV.D, applicants must file an application to the Water Boards for
- any activity that could result in the discharge of dredged or fill material to waters of the state in
- 115 accordance with California Code of Regulations, title 23, section 3855. [⊥] The applicant may consult with
- the Water Boards to determine whether a project could result in impacts to waters of the state and/or
- 117 <u>discuss submittals that would meet the application requirements listed below.</u>4

A. Project Application Submittal

- 119 Applicants must submit the items listed in subsection 1 to the permitting authority. In addition, applicants
- shall consult with the permitting authority about the items listed in subsection 2. Within 30 days of
- receiving the items listed in subsection 1, the permitting authority may require the applicant to submit one
- or more of the items in subsection 2 for a complete application. Within 30 days of receiving all of the
- required items, the permitting authority shall determine whether the application is complete and notify the
- applicant accordingly. If the applicant's federal license or permit application includes any of the
- information required in subsections 1 or 2 below, the applicant may submit the federal application
- materials to satisfy the corresponding state application information. If federal application materials are
- submitted as part of the state application, the applicant shall indicate where the corresponding state
- application information can be found in the federal application materials.
- 129 1. Items Required for a Complete Application
 - a. All items listed in California Code of Regulations, title 23, section 3856 "Contents of a Complete Application." 58
 - b. If wetlands that are waters of the U.S. are present, a final aquatic resource delineation report, with a preliminary or approved jurisdictional determination issued by the Corps.

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²⁵/₂ 40 C.F.R. § 230.

³⁶/₂ The State Supplemental Dredge and Fill Guidelines are included as Appendix A. Because Appendix A is derived directly from the 404(b)(1) guidelines, it uses slightly different terms than terms used in sections I through V of these Procedures. Appendix A will be applied in a manner consistent with sections I through V of these Procedures.

⁷ Note that California Code of Regulations, title 23, section 3855 applies only to individual water quality certifications, but these Procedures extend the application of section 3855 to individual waste discharge requirements for discharges of dredged or fill material to waters of the state.

⁴-Note that California Code of Regulations, title 23, section 3855 applies only to individual water quality certifications, but these Procedures extend the application of section 3855 to individual waste discharge requirements for discharges of dredged and fill material to waters of the state.

⁵⁸ Note that California Code of Regulations, title 23, section 3856 applies only to individual water quality certifications, but these Procedures extend the application of section 3856 to individual waste discharge requirements for discharges of dredged and or fill material to waters of the state.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- <u>c. If</u> waters of the state <u>outside of federal jurisdiction</u> are present, a delineation of those <u>waters</u>, <u>including</u> wetlands <u>delineated</u> as described in section III. In addition, if waters of the U.S. are present, any preliminary or final wetland delineation report that was submitted to the Corps.
- <u>d.</u> c. The date or dates upon which the overall project activity will begin and end; and, if known, the date or dates(s) upon which the discharge(s) will take place.
- e. d.-Map(s) with a scale of at least 1:24000 (1" = 2000') and of sufficient detail to accurately show (1) the boundaries of the lands owned or to be utilized by the applicant in carrying out the proposed activity, including the <u>grading limits, proposed land uses, and the</u> location, dimensions and type of any structures erected (<u>if known</u>) or to be erected on the plotted lands for use in connection with the activity and the location, and (2) all aquatic resources that may qualify as waters of the state, within the boundaries of the project, and all aquatic resources that may qualify as waters of the state outside of the boundary of the project that could be affected by the project. A map submitted for a Corps' preliminary jurisdictional determination may satisfy this requirement if it includes all potential waters of the state. The <u>Permitting Authority permitting authority</u> may require that the map(s) be submitted in electronic format (e.g., GIS shapefiles).
- <u>f.</u> e. A description of the waters proposed to receive a discharge of dredged or fill material, including the beneficial uses as listed in the applicable water quality control plan. The description should also include: a description of discharge at each individual impact location; quantity of impact at each location in-rounded to the nearest tenthone-thousandth (0.001) of an acre, nearest linear foot, and nearest cubic yard (as applicable); assessment of potential direct and indirect impacts to listed beneficial uses and potential mitigation measures for those potential impacts to beneficial uses, identification of existing water quality impairment(s); the source of water quality impairment(s), if known; and the presence of rare, threatened or endangered aquatic-species resource habitat.
- g. An alternatives analysis, 9 unless any of the following exemptions apply.
 - i. The project includes discharges to waters of the state outside of federal jurisdiction, but the project would meet the terms and conditions of one or more Water Board certified Corps' General Permits, if all discharges were to waters of the U.S. The permitting authority will verify that the project would meet the terms and conditions of the Corps' General Permit(s) if all discharges were to waters of the U.S. based on information supplied by the applicant.
 - <u>ii.</u> The project would be conducted in accordance with a watershed plan that has been approved by the permitting authority and analyzed in an environmental document that includes a sufficient alternatives analysis, monitoring provisions, and guidance on compensatory mitigation opportunities.

⁹ "Alternatives analysis" as used in these Procedures refer to the analysis required by Section IV.A.(h) and Appendix A, State Supplement Dredged or Fill Guidelines, section 230.10(a). An alternatives analysis also may be required in order to comply with other statutory or regulatory requirements, such as CEQA. The exemptions and the tiers set forth below do not affect any alternatives analysis conducted pursuant to another statutory or regulatory requirement. To the extent that the permitting authority is acting as the lead agency under CEQA, it may be necessary for the permitting authority to conduct further analysis to comply with CEQA.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- iii. The project is an Ecological Restoration and Enhancement Project.
- <u>iv.</u> The project has no permanent impacts to aquatic resources and no impacts to any bog, fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed, anadromous fish habitat, or habitat for rare, threatened or endangered species, and all implementation actions in the restoration plan can reasonably be concluded within one year.
- h. If none of the above exemptions apply, the applicant must submit an alternatives analysis consistent with the requirements of 230.10 of the State Supplemental Dredge or Fill Guidelines that allows the permitting authority to determine whether the proposed project is the Least Environmentally Damaging Practicable Alternative (LEDPA). If the applicant submitted a draft alternatives analysis to the Corps, the applicant shall provide a copy to the permitting authority. Such alternatives analyses may satisfy some or all of the following requirements in accordance with Section IV.B.3. Alternatives analyses shall be completed in accordance with the following tiers, unless the permitting authority determines that a lesser level of analysis is appropriate. The level of effort required for an alternatives analysis within each tier shall be commensurate with the significance of the project's potential threats to water quality and beneficial uses¹⁰.
 - i. Tier 3 projects include any project that directly impacts more than two-tenths (0.2) of an acre or 300 linear feet of waters of the state, or directly impacts a bog, fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed, anadromous fish habitat, or habitat for rare, threatened or endangered species; and is not a project that inherently cannot be located at an alternate location. Tier 3 projects shall provide an analysis of off-site and on-site alternatives.
 - ii. Tier 2 projects include any project that directly impacts more than one tenth (0.1) and less than or equal to two tenths (0.2) of an acre or more than 100 and less than or equal to 300 linear feet of waters of the state, or any project that inherently cannot be located at an alternate location (unless it meets the size requirements set forth in Tier 1). Tier 2 projects shall provide an analysis of only on-site alternatives.
 - iii. Tier 1 projects include any project that directly impacts less than or equal to one tenth (0.1) of an acre or less than or equal to 100 linear feet of waters of the state, unless it is a Tier 3 project because it impacts a specified habitat type. Tier 1 projects shall provide a description of any steps that have been or will be taken to avoid and minimize loss of, or significant adverse impacts to, beneficial uses of waters of the state.
- 2. Additional Information Required for a Complete Application
 - a. If required by the permitting authority on a case-by-case basis, if the wetland area delineations were conducted in the dry season, supplemental field data from the wet season to substantiate dry season delineations.

¹⁰ As used below, "impacts" include both permanent and temporary impacts.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- b. If required by the permitting authority on a case-by-case basis, an assessment of the potential impacts associated with climate change related to the proposed project and any proposed compensation mitigation, and any measures to avoid or minimize those potential impacts.
- c. If required by the permitting authority on a case by case basis, if no exemptions apply, an alternatives analysis in accordance with section IV.B.3 and, any supporting documentation.
- d.-If compensatory mitigation is required by the permitting authority on a case-by-case basis, an assessment of the overall condition of aquatic resources proposed to receive a discharge of dredged or fill material and their likely stressors, using an assessment method approved by the permitting authority and a draft compensatory mitigation plan developed using a watershed approach containing the items below. Compensatory mitigation plans are not required for Ecological Restoration and Enhancement Projects. For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items i and ii, as described below, as well as information required in Appendix A, section 230.94 (c)(5) and (c)(6), and the name of the specific mitigation bank or in-lieu fee program proposed to be used.

Draft compensatory mitigation plans shall comport with the State Supplemental <u>Dredged Dredge</u> or Fill Guidelines, Subpart J, and include the elements listed below.

- i. A watershed profile for the project evaluation area for both the proposed dredged or fill project and the proposed compensatory mitigation project. The scope and detail of the watershed profile shall be commensurate with the magnitude of impact associated with the proposed project, and shall describe the overall abundance, diversity, and condition of aquatic resources in the project evaluation area. The watershed profile shall include a map and report characterizing the location, abundance, and diversity of aquatic resources in the project evaluation area, and a report characterizing the condition of aquatic resources in the project evaluation area and the environmental stress factors affecting condition. In some cases, field data may need to be collected in the project evaluation area to confirm the reported condition. Some or all of the information may be obtained from a watershed plan.
- ii. A description of how the <u>project impacts and</u> compensatory mitigation plan, whether located inside or outside the project watershed area, does<u>would</u> not cause a net loss of the overall abundance, diversity, and condition of aquatic resources, based on the watershed profile. <u>If the compensatory mitigation is located in the same watershed as the project, no net loss will be determined on a watershed basis. If the compensatory mitigation and project impacts are located in multiple watersheds, no net loss will be determined considering all affected <u>watersheds</u>. The level of detail in the plan shall be sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to a project.</u>
- iii. Preliminary information about ecological performance standards, monitoring, and long-term protection and management, as described in State Supplemental <u>Dredged Dredge</u> or Fill Guidelines.
- iv. A timetable for implementing the compensatory mitigation plan.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- v. If the compensatory mitigation plan includes buffers, design criteria and monitoring requirements for those buffers.
- vi. If the compensatory mitigation involves restoration or establishment as the form of mitigation, applicants shall consult with notify state and federal land management agencies, airport land use commission, fire control districts, flood control districts, local mosquito-vector control district(s), and any other interested local entities prior to initial site selection. Appropriate mosquito and vector control measures, including maintenance specifications, shall be developed in coordination with local mosquito-vector control district(s) or other responsible public agency(ies) during the initial compensatory mitigation project design stage. vii. If the compensatory mitigation involves restoration or establishment on a site(s) within five miles of any airport, applicants shall consult the applicable airport land use commission or other appropriate responsible public agency to determine whether the proposed compensatory mitigation project may pose a danger to air traffic safety, and submit proof of consultation. These entities should be consulted These entities should be notified as early as possible during the initial compensatory mitigation project design stage.
- <u>d.</u> e. If required by the permitting authority on a case-by-case basis, if project activities include in-water work or water diversions, a proposed water quality monitoring plan to monitor compliance with water quality objectives of the applicable water quality control plan. At a minimum, the plan should include type and frequency of sampling for each applicable parameter.
- <u>e.</u> f.-In all cases where temporary impacts are proposed, a draft restoration plan <u>that outlines design</u>, <u>implementation</u>, <u>assessment</u>, <u>and maintenance</u> for restoring areas of temporary impact to pre-project conditions-including, at a minimum, the following: <u>The design components shall include</u> the objectives of the restoration plan; <u>a work schedule</u>; <u>plans for grading plan</u> of disturbed areas to pre-project contours; a planting palette with plant species native to the area; seed collection locations; <u>and</u> an invasive species management plan; <u>The implementation component shall include all proposed actions to implement the plan (e.g., re-contouring, initial planting, site stabilization, removal of temporary structures) and a schedule for completing those actions. The <u>maintenance and assessment components shall include</u> a description of performance standards used to evaluate attainment of objectives; the timeframe for determining attainment of performance standards; and maintenance requirements (e.g., watering, weeding, and replanting), and invasive species control). The level of detail in the restoration plan shall be sufficient to accurately evaluate whether the restoration offsets the adverse impacts attributed to a project.</u>
 - Prior to issuance of the Order, the applicant shall submit a final restoration plan that describes the restoration of all temporarily disturbed areas to pre-project conditions.
- g. For all Ecological Restoration and Enhancement Projects, a draft monitoring assessment plan including, at a minimum, the following: project objectives; description of performance standards used to evaluate attainment of objectives; protocols for monitoring and data condition assessment; the timeframe and responsible party for determining attainment of performance standards; and monitoring schedule. For Ecological Restoration and Enhancement projects, monitoring shall consist of performing condition assessment; and assessment schedule. A draft assessment plan shall provide for at least one assessment of the overall condition of aquatic resources and their likely stressors, using an appropriate assessment method subject to the approval of approved by the permitting authority, prior to restoration and/or enhancement and two

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

years following restoration and/or enhancement to determine success of the restoration and/or enhancement.

B. Permitting Authority Review and Approval of Applications for Individual Orders

- The permitting authority will evaluate the potential impacts on the aquatic environment from the
 proposed project and determine whether the proposed project complies with these Procedures. The
 permitting authority has the discretion to approve a project only if the applicant has demonstrated the
 following:
 - a. A sequence of actions has been taken to first avoid, then to minimize, and lastly compensate for adverse impacts to waters of the state;
 - b. The potential impacts will not contribute to a net loss of the overall abundance, diversity, and condition of aquatic resources in a watershed;
 - c. The discharge of dredged or fill material will not violate water quality standards and will be consistent with all applicable water quality control plans and policies for water quality control; and
 - d. The discharge of dredged or fill material will not cause or contribute to significant degradation of the waters of the state.
- The permitting authority shall rely on any Corps approved wetland area delineation within the <u>final</u> aquatic resource report, with a preliminary or approved jurisdictional determination issued by the <u>Corps to determine</u> boundaries of waters of the U.S. For all other wetland area delineations, the permitting authority shall review and approve delineations that are performed using the methods described in Section III.
- 3. Alternatives Analysis Submission and Review Requirements:
 - a. The purpose of the alternatives analysis is to identify the least environmentally damaging practicable alternative (LEDPA)LEDPA. The permitting authority will be responsible for determining the sufficiency of an alternatives analysis except as described in 3(b) below. In all cases, the alternatives analysis must establish that the proposed project alternative is the LEDPA in light of all potential direct, secondary (indirect), and cumulative impacts on the physical, chemical, and biological elements of the aquatic ecosystem.
 - b. <u>Discharges to waters of the U.S.</u>
 - In reviewing and approving the alternatives analysis for discharges of dredged or fill material that impact waters of the U.S., the permitting authority shall defer to the Corps and EPA' determinations on the adequacy of the alternatives analysis, or rely on a draft alternatives analysis if no final determination has been made, unless the Executive Officer or Executive Director determines that (1) the permitting authority was not provided an adequate opportunity to consult during collaborate in the development of the Corps' alternatives analysis, (2) the Corps' alternatives analysis does not adequately address issues identified by the permitting authority during consultation, (3) additional analysis is required to comply with CEQA, water quality standards, or other requirements or (4in writing by the Executive Officer or Executive Director to the Corps during the development of the alternatives analysis, or (3) the proposed project and all of the identified alternatives would not comply with water quality standards.

If the project also includes discharges to waters of the state outside of federal jurisdiction, the permitting authority mayshall require the applicant to supplement the alternatives analysis to

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

include waters of the state outside of federal jurisdiction. If an alternatives analysis is not required by the Corps for waters of the U.S. impacted by the discharge of dredged or fill material, the permitting authority <u>mayshall</u> require an alternatives analysis for the entire project in accordance with the State Supplemental <u>Dredged Dredge</u> or Fill Guidelines, unless the project is exempt under <u>subsection (dSection IV.A.1.(g) belowabove</u>.

c. Discharges solely to waters of the state outside of federal jurisdiction

The permitting authority may require an alternatives analysis in accordance with the State Supplemental Dredged or Fill Guidelines, unless the project is exempt under subsection (d) below.

d. Exemptions from Alternatives Analysis

Unless the permitting authority is required to analyze alternatives to a proposed project in order to comply with CEQA, water quality standards, or other requirements the permitting authority shall not require an alternatives analysis if any of the following exemptions apply.

- i. The project includes discharges to waters of U.S. only, and the project meets the terms and conditions of one or more Corps' General Permits that has been previously certified by the Water Boards. The permitting authority will verify that the project meets the terms and conditions of the Corps' General Permit based on information supplied by the applicant.
- ii. The project includes discharges to waters of the state outside of federal jurisdiction, and the project would meet the terms and conditions of one or more Corps' General Permits that has been previously certified by the Water Boards, if all the discharges were to waters of the U.S. The permitting authority will verify that the project would meet the terms and conditions of the Corps' General Permit(s) if all discharges were to waters of the U.S. based on information supplied by the applicant.
- iii. The project inherently cannot be located in an alternate location (e.g., bank stabilization projects). The permitting authority may, however, require an analysis of on-site alternatives that would minimize impacts to waters of the state.
- iv. The project would be conducted in accordance with a watershed plan that has been approved by the permitting authority and analyzed in an environmental document that includes a sufficient alternatives analysis, monitoring provisions, and guidance on compensatory mitigation opportunities.
- v. The project is an Ecological Restoration and Enhancement Project.
- e. The permitting authority will be responsible for determining the sufficiency of an alternatives analysis that is required under their discretion (see 3b, 3.c and 3.d above). The alternatives analysis must establish that the proposed project alternative is the LEDPA in light of all potential direct, secondary (indirect), and cumulative adverse impacts on the physical, chemical, and biological elements of the aquatic ecosystem.
- f. If an alternatives analysis is required by these Procedures, the final alternatives analysis shall be submitted prior to the issuance of the Order.
- 4. Prior to issuance of the Order, the permitting authority will review and approve the final restoration plan for temporary impacts.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

5. Compensatory Mitigation

- a. Compensatory mitigation, in accordance with the State Supplemental <u>Dredged Dredge</u> or Fill Guidelines, Subpart J, may be required to ensure that an activity complies with these Procedures.
- b. Where feasible, the permitting authority will consult and coordinate with any other public agencies that have concurrent mitigation requirements in order to achieve multiple environmental benefits with a single mitigation project, thereby reducing the cost of compliance to the applicant.
- c. Amount: The amount of compensatory mitigation will be determined on a project-by-project basis in accordance with State Supplemental Dredge or Fill Guidelines, section 230.93(f). The permitting authority may take into account recent anthropogenic degradation to the aquatic resource and the potential and existing functions and conditions of the aquatic resource. A minimum of one-to-one acreage or length of stream reach replacement is necessary to compensate for wetland or stream losses unless an appropriate function or condition assessment method clearly demonstrates, on an exceptional basis, that a lesser amount is sufficient. A reduction in the mitigation ratio for compensatory mitigation will be considered by the permitting authority if buffer areas adjacent to the compensatory mitigation are also required to be maintained as part of the compensatory mitigation management plan. The amount of compensatory mitigation required by the permitting authority will vary depending on which of the following strategies the applicant uses to locate the mitigation site within a watershed.

<u>Strategy 1:</u> Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed from a watershed plan that has been approved by the permitting authority and analyzed in an environmental document, includes monitoring provisions, and includes guidance on compensatory mitigation opportunities;

<u>Strategy 2:</u> Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed for a project evaluation area, and demonstrates that the mitigation project will contribute to the sustainability of watershed functions and the overall health of the watershed area's aquatic resources.

Generally, the amount of compensatory mitigation required under Strategy 1 will be less than the amount of compensatory mitigation required under Strategy 2 since the level of certainty that a compensatory mitigation project will meet its performance standards increases if the compensatory mitigation project complies with a watershed plan as described above. Certainty increases when there is a corresponding increase in understanding of watershed conditions, which is increased when using a watershed plan as described above to determine compensatory mitigation requirements.

d. <u>Type and Location</u>: The permitting authority will evaluate the applicant's proposed mitigation type and location based on the applicant's use of a watershed approach based on a watershed profile. If <u>The permitting authority will determine the appropriate type and location of compensatory mitigation based on watershed conditions, impact size, location and spacing, aquatic resource values, relevant watershed plans, and other considerations.</u>

In general, the required compensatory mitigation should be located within the same watershed as the impact site, but the permitting authority may approve compensatory mitigation in a different watershed. For example, if a proposed project may affect more than one watershed, then the permitting authority may determine that locating all required project mitigation in one area is ecologically preferable to requiring mitigation within each watershed, based on watershed

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

411 conditions, impact size, location and spacing, aquatic resource values, relevant watershed plans
412 and other considerations. .

e. <u>Final Compensatory Mitigation Plan:</u> The permitting authority will review and approve the final compensatory mitigation plan submitted by the applicant to ensure mitigation comports with the State Supplemental <u>Dredged Dredge</u> or Fill Guidelines, Water Code requirements, applicable water quality standards, and other appropriate requirements of state law. The level of detail in the final plan shall be sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to a project considering the overall size and scope of impact. The compensatory mitigation plan shall be sufficient to provide the permitting authority with a reasonable assurance that replacement of the full range of lost aquatic resource(s) and/or functions will be provided in perpetuity.

The permitting authority may include as a condition of an Order that the applicant receive approval of a final mitigation plan prior to discharging dredged or fill materials to waters of the state. In this case, the permitting authority will approve the final mitigation plan by amending the Order.

- f. <u>Financial Security:</u> Where deemed necessary by the permitting authority, provision of a financial security (e.g., letter of credit or performance bond) shall be a condition of the Order. In this case, the permitting authority will approve the financial security to ensure compliance with compensatory mitigation plan requirements.
- g. <u>Term of Mitigation Obligation:</u> The permitting authority may specify in the Order the conditions that must be met in order for the permitting authority to release the permittee from the mitigation obligation, including compensatory mitigation performance standards and long <u>term</u> management funding obligations.
- 6. The permitting authority shall provide public notice in accordance with Water Code section 13167.5 for waste discharge requirements. The permitting authority shall provide public notice of an application for water quality certification in accordance with California Code of Regulations, title 23, section 3858. If the permitting authority receives comments on the application or there is substantial public interest in the project, the permitting authority shall also provide public notice of the draft Order, or draft amendment of the Order, unless circumstances warrant a shorter notice period.
- The permitting authority will review and approve the final monitoring and reporting requirements for all
 projects. Monitoring and reporting may be required to demonstrate compliance with the terms of the
 Order.

C. General Orders

- The permitting authority may issue general orders for specific classes of dredged or fill discharge activities that are similar; involve the same or similar types of discharges and possible adverse impacts requiring the same or similar conditions or limitations in order to alleviate potential adverse impacts to water quality; and are determined by the permitting authority to more appropriately be regulated under a general order rather than under an individual Order.
- General orders shall be reviewed, noticed, and issued in accordance with the applicable requirements of
- division 7 of the Water Code and the California Code of Regulations, division 3 of title 23.

 Applicants applying to enroll under a general order shall file a Notice of Intent with the permitting authority
- Applicants applying to enroll under a general order shall file a Notice of Intent with the permitting authority in accordance with follow the instructions specified in the general order for obtaining coverage.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

D. Activities and Areas Excluded from the Application Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State

The application procedures specified in sections IV.A and IV.B do not apply to proposed discharges of dredged or fill material to waters of the state from the following activities or to the following areas. These exclusions do not, however, affect the Water Board's authority to issue or waive waste discharge requirements (WDRs) or take other actions for the following activities or areas to the extent authorized by the Water Code.

- 1. Activities excluded from application procedures in sections IV.A and IV.B:
 - a. Activities that are exempt under CWA section 404(f) (33 USC § 1344(f)). The following federal regulations (Table 1), guidance letters (Table 2), and memoranda (Table 3), that have been adopted pursuant to CWA section 404(f) or that are used to interpret or implement section 404(f) shall be used when determining whether certain activities are excluded from these procedures. These documents are hereby incorporated by reference and shall apply to all waters of the state. Consistent with CWA section 404(f)(2) and 40 CFR section 232.3, any discharge of dredged or fill material to a water of the state incidental to any of these activities is not exempt under CWA section 404(f) and shall be subject to the application procedures sections IV.A and IV.B, if (1) the purpose of the activity is bringing a water of the state into a use to which it was not previously subject, where the flow or circulation of water of the state may be impaired or the reach of such waters be reduced, or (2) the discharge contains any toxic pollutant listed in CWA section 307.

b. Table 1: CFR References 611

Title	Section	Name
33 CFR	323.4	Discharges not requiring permits (1986)
40 CFR	232.3	Activities not requiring permits (1988)

Table 2: Applicable U.S. Army Corps of Engineers (Corps) Regulatory Guidance Letters (RGLs)⁷¹²

RGL	Title
82-03	Irrigation Exemption in Section 404(F)(1)(C) of the Clean Water Act
84-01	Regulatory Jurisdiction Over Vegetative Operations
84-05	Fifth Circuit Decision in Avoyelles vs. Marsh

⁶11 The documents in Table 1 are available at the U.S. Government Printing Office, Code of Federal Regulations webpage: http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=C.F.R.

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⁷¹² The documents in Table 2 are available at the U.S. Army Corps of Engineers, Regulatory Program and Permits, Related Resources, Regulatory Guidance Letters webpage: http://www.usace.army.mil/Missions/CivilWorks/Regulatory/ProgramandPermits/GuidanceLetters.aspx

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

85-04	Agricultural Conversion
86-01	Exemptions to Clean Water Act - Plowing
86-03	Exemption of Farm and Forest Roads
87-07	Exemption for Drainage Ditch Maintenance
87-09	Exemption for Construction or Maintenance of Farm or Stock Ponds
92-02	Water Dependency and Cranberry Production
93-03	Rescission of RGL's 90-5 and 90-8
96-02	Applicability of Exemptions under Section 404(f) to "Deep Ripping" Activities in Wetlands
07-02	Exemptions for Construction or Maintenance of Irrigation Ditches and Maintenance of Drainage Ditches Under Section 404 of Clean Water Act

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Table 3: Memoranda⁸13

Memorandum for the Field: Clean Water Act Section 404 Regulatory Program and Agricultural Activities (1990)

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- c. b. Suction dredge mining activities for mineral recovery regulated under CWA section 402.
- 2. Areas excluded from application procedures in sections IV.A and IV.B:
 - a. Discharges of dredged or fill material that occur within wetland areas that have been certified as prior converted cropland (PCC) by the Natural Resources Conservation Service. The PCC exclusion will no longer apply if: (1) the PCC changes to a non-agricultural use, or (2) the PCC is abandoned, meaning it is not planted to an agricultural commodity for more than five consecutive years and wetland characteristics return, and the land was not left idle in accordance with a USDA program.
 - i. For purposes of D.2.(a), agricultural commodity means any crop planted and produced by annual tilling of the soil, including tiling by one-trip planters, or sugarcane. 914
 - ii. For purposes of D.2.(a), agricultural use means open land planted to an agricultural crop, used for the production of (1) food or fiber, (2) used for haying or grazing, (3) left idle per a USDA program, or (4) diverted from crop production to an approved cultural practice by

⁸¹³ These documents are available at the U.S. Army Corps of Engineers Regulatory Program and Permits, Related Resources, Memoranda of Understanding/Agreement webpage: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ MOUMOAs.aspx

⁹¹⁴ Joint Guidance from the Natural Resources Conservation Service and the Army Corps of Engineers Concerning Wetland Determinations for the Clean Water Act and the Food Security Act of 1985, February 25, 2005.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

NRCS that prevents erosion or other degradation. 40,15 b. Discharges of dredged or fill material for the purpose of creating or maintaining constructed treatment wetlands, as long as the constructed treatment wetland is located in an area that did not historically support wetland areas or other aquatic resources, and the treatment wetlands were not constructed as mitigation for discharges of dredged or fill material to other wetlands.

<u>b.</u> e. Discharges of dredged or fill material that are associated with routine maintenance of storm water facilities regulated under another Water Board Order, such as sedimentation/storm water detention basins.

For activities associated with (1) an appropriation of water subject to Part 2 (commencing with section 1200) of Division 2 of the Water Code, (2) a hydroelectric facility where the proposed activity requires a Federal Energy Regulatory Commission (FERC) license or amendment to a FERC license, or (3) any other diversion of water for beneficial use, the Division of Water Rights will inform the applicant whether the application procedures in sections IV.A and IV.B will apply to the application.

V. Definitions

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- The following definitions apply to these Procedures, including the State Supplemental <u>Dredged Dredge</u> or Fill Guidelines. Unless otherwise indicated, any term that is not defined in these Procedures shall have the same meaning as defined in Water Code section 13050, and title 23, section 3831 of the California Code of Regulations.
- Abundance means an estimate of the amount of aquatic resources by type in a watershed area, and what types of aquatic resources are most and least prevalent.
- Alternatives Analysis is the process of analyzing project alternatives, including the proposed project, to determine the alternative that is both practicable and the least environmentally damaging.
- Application means a written request, including a report of waste discharge or request for water quality certification, for authorization of any activity that may result in the discharge of dredged or fill material and is subject to this Policy.these Procedures.
- 517 <u>Wetland</u> Delineation means the application of a technical and procedural method to identify the
 518 boundary of a wetland area within a specified study site by identifying the presence or absence of wetland
 519 indicators at multiple points at the site and by establishing boundaries that group together sets of points
 520 that share the same status as wetland versus non-wetland.
- Discharge of Dredged Material means addition of dredged material, material that is excavated or dredged from waters of the state, including redeposit of dredged material other than incidental fallback within, to the waters of state.
- 524 **Diversity** means the relative proportion of aquatic resource types, classification, connectivity, and spatial distribution in a watershed area.

¹⁰ Joint Guidance from the Natural Resources Conservation Service and the Army Corps of Engineers Concerning Wetland Determinations for the Clean Water Act and the Food Security Act of 1985, February 25, 2005

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

Discharge of Fill Material means the addition of fill material where the material has the effect of replacing any portion of a water of the state with dry land or changing the bottom elevation of any portion of a water of the state.

Ecological Restoration and Enhancement Project means projects the project is voluntarily undertaken for the-sole purpose of assisting or controlling the recovery of an aquatic ecosystem that has been degraded, damaged or destroyed to restore some measure of its natural condition and to enhance the beneficial uses-or, including potential beneficial uses of water. Such projects are undertaken-voluntarily: 1) in accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Farm Service Agency, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Forest Service, U.S. Bureau of Land Management, California Department of Fish and Wildlife, California Wildlife Conservation Board, California Coastal Conservancy, or other federal or state resource agency or non-governmental conservation organization-; or 2) by a state or federal agency. These projects do not include the conversion of a stream or natural wetland to another aquatic habitat type or uplands; or stream channelization; or relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments. It is recognized that ecological restoration and enhancement projects may require filling gullied stream channels and similar rehabilitative activities to re-establish stream and meadow hydrology. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during rehabilitation activities are not considered a conversion to another aquatic habitat type. These projects also do not include actions required under a Water Board order (e.g., WDRs, waivers of WDRs, or water quality certification) for mitigation, actions to service required mitigation, or actions undertaken for the primary purpose of land development, agricultural production, property protection, or flood management.

- Environmental Document means a document prepared for compliance with the California Environmental Quality Act or the National Environmental Policy Act.
- Hydrophyte means any macrophyte that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; plants typically found in wet habitats.
- LEDPA means the least environmentally damaging practicable alternative. The determination of practicable alternatives shall be consistent with the State Supplemental Guidelines, section 230.10(a).
- Normal Circumstances is the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed. The determination of whether normal circumstances exist in a disturbed area involves an evaluation of the extent and relative permanence of the physical alteration of wetlands hydrology and hydrophytic vegetation and consideration of the purpose and cause of the physical alterations to hydrology and vegetation.
- Order means Waste Discharge Requirements, waivers of Waste Discharge Requirements, or water quality certification.
- Permitting Authority means the entity or person issuing the Order (i.e., the applicable Water Board, Executive Director or Executive Officer, or his or her designee).
- Project Evaluation Area means an area that includes the project impact site, and/or the compensatory mitigation site, and is sufficiently large to evaluate the effects of the project and/or the compensatory mitigation on the abundance, diversity, and condition of aquatic resources in an ecologically meaningful

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- unit of the watershed. The size and location of the ecologically meaningful unit shall be based on a reasonable rationale.
- Water Boards mean any of the nine Regional Water Quality Control Boards, the State Water Resources
 Control Board, or all of them collectively.
- Watershed means a land area that drains to a common waterway, such as a stream, lake, estuary, wetland, or ultimately the ocean.
- 574 Watershed Approach means an analytical process for evaluating the environmental effects of a 575 proposed project and making decisions that support the sustainability or improvement of aquatic 576 resources in a watershed. The watershed approach recognizes that the abundance, diversity, and 577 condition of aquatic resources in a watershed support beneficial uses. Diversity of aquatic resources 578 includes both the types of aquatic resources and the locations of those aquatic resources in a watershed. 579 Consideration is also given to understanding historic and potential aquatic resource conditions, past and 580 projected aquatic resource impacts in the watershed, and terrestrial connections between aquatic 581 resources. The watershed approach can be used to evaluate avoidance and minimization of direct. 582 indirect, secondary, and cumulative project impacts. It also can be used in determining compensatory 583 mitigation requirements.
- 584 Watershed Plan means a document that provides assessment and management information for a 585 geographically defined watershed, including the analyses, actions, participants, and resources related to 586 development and implementation of the plan. developed in consultation with relevant stakeholders, for the specific goal of aquatic resource restoration, establishment, enhancement, and preservation within a 587 588 watershed. A watershed plan addresses aguatic resource conditions in the watershed, multiple 589 stakeholder interests, and land uses. Watershed plans should include information about implementing 590 the watershed plan. Watershed plans may also identify priority sites for aquatic resource restoration and 591 protection. Examples of watershed plans include special area management plans, advance identification 592 programs, and wetland management plans. The permitting authority may approve the use of HCPs and NCCPs as watershed plans. 593
- Watershed Profile means a compilation of data or information on the abundance, typesdiversity, and condition of aquatic resources in a project evaluation area-sufficient to provide. The watershed profile shall include a map and a report characterizing the location, abundance and diversity of aquatic resources in the project evaluation area, assessing the condition of aquatic resources in the project evaluation area, and describing the environmental stress factors affecting that condition.
- The watershed profile shall include information sufficient to evaluate direct, secondary, and cumulative impacts of project and factors that may favor or hinder the success of compensatory mitigation alternatives projects, and to help define watershed goals. It may include such things as current trends in habitat loss or conservation, cumulative impacts of past development activities, current development trends, the presence and need of sensitive species, and chronic environmental problems or site
- 603 <u>trends, the presence and need of sensitive species, and chronic environmental problems or si</u> 604 conditions such as flooding or poor water quality.
- The scope and detail of the watershed profile shall be commensurate with the magnitude of impact associated with the proposed project. Information sources include online searches, maps, watershed plans, and possibly some fieldwork if necessary. In some cases, field data may need to be collected in
- 608 the project evaluation area to confirm the reported condition. Some or all of the information may be

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

obtained from a watershed plan. Watershed profiles for subsequent projects in a watershed can be used to track the cumulative effectiveness of the permitting authority's decisions.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

Appendix A: State Supplemental Dredged Dredge or Fill Guidelines

- It is the intent of the Water Boards to be consistent with the CorpsEPA's 404(b)(1) Guidelines where feasible. Due to jurisdictional and procedural differences, some modifications to the CorpsEPA's Guidelines were necessary. Generally, these changes or deletions were made to reduce redundancy (especially where sufficiently described elsewhere in these Procedures) and to account for other state requirements. Note that the numbering scheme of the CorpsEPA's 404(b)(1) Guidelines has been retained in these State Supplemental DredgedDredge or Fill Guidelines for the benefit of practitioners who are familiar with the Corps'federal Guidelines. The State Supplemental DredgedDredge or Fill Guidelines, 40 CFR under these Procedures. In cases of conflict, Parts I through V take precedence over these The definitions contained herein apply to these Procedures, including the State Supplemental DredgedDredge or Fill Guidelines.
- 624 Subpart A General 1116
- 625 § 230.3 Definitions.
 - For purposes of these Procedures, the following terms shall have the meanings indicated:
- 627 (c) The terms aquatic environment and aquatic ecosystem mean waters of the state, including
 628 wetlands, that serve as habitat for interrelated and interacting communities and populations of plants
 629 and animals.
 - (h) The term discharge point means the point within the disposal site at which the dredged or fill material is released.
 - (i) The term disposal site means that portion of the "waters of the state" where the discharge of dredged or fill material is permitted and involves a bottom surface area and any overlying volume of water. In the case of wetlands or ephemeral streams on which surface water is not present, the disposal site consists of the wetland or ephemeral stream surface area.
 - (k) The term extraction site means the place from which the dredged or fill material proposed for discharge is to be removed.
 - (n) The term permitting authority means as defined above in the main text of this Policy. these Procedures.
 - (q) The term practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.
 - (q1) Special aquatic sites are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively

^{41&}lt;u>16</u> Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

contributing to the general overall environmental health or vitality of the entire ecosystem of a region. (See § 230.10 (a)(3))

§ 230.6 Adaptability¹²17

(a) The manner in which these Guidelines are used depends on the physical, biological, and chemical nature of the proposed extraction site, the material to be discharged, and the candidate disposal site, including any other important components of the ecosystem being evaluated. Documentation to demonstrate knowledge about the extraction site, materials to be extracted, and the candidate disposal site is an essential component of guideline application. These Guidelines allow evaluation and documentation for a variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impact is likely to be innocuous. It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how complex. It is anticipated that substantial numbers of permit applications will be for minor, routine activities that have little, if any, potential for significant degradation of the aquatic environment. It generally is not intended or expected that extensive testing, evaluation or analysis will be needed to make findings of compliance in such routine cases.

Where the conditions for General permits are met, and where numerous applications for similar activities are likely, the use of General permits will eliminate repetitive evaluation and documentation for individual discharges.(b) The Guidelines user, including the agency or agencies responsible for implementing the Guidelines, must recognize the different levels of effort that should be associated with varying degrees of impact and require or prepare commensurate documentation. The level of documentation should reflect the significance and complexity of the discharge activity.

(c) An essential part of the evaluation process involves making determinations as to the relevance of any portion(s) of the Guidelines and conducting further evaluation only as needed. However, where portions of the Guidelines review procedure are "short form" evaluations, there still must be sufficient information (including consideration of both individual and cumulative impacts) to support the decision of whether to specify the site for disposal of dredged or fill material and to support the decision to curtail or abbreviate the evaluation process. The presumption against the discharge in § 230.1 applies to this decision-making.

(d) In the case of activities covered by General permits for dredge and fill activities issued by the permitting authority, the analysis and documentation required by the Guidelines will be performed at the time of General permit for dredge and fill activities issuance by the permitting authority and will not be repeated when activities are conducted under a General permit for dredge and fill activities issued by the permitting authority. These Guidelines do not require reporting or formal written communication at the time individual activities are initiated under a General permit for dredge and fill activities issued by the permitting authority. However, a particular General permit for dredge and fill activities issued by the permitting authority may require appropriate reporting.

Subpart B – Compliance with Guidelines 1318

⁴²17 Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

§ 230.10 Restrictions on Discharge

- (a) No discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.
 - (1) For the purpose of this requirement, practicable alternatives include, but are not limited to:
 - (i) Activities which do not involve a discharge of dredged or fill material to waters of the state or ocean waters;
 - (ii) Discharges of dredged or fill material at other locations in waters of the state or ocean waters;
 - (2) An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area nornot presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.
 - (3) Where activity associated with a discharge which is proposed for a special aquatic site (as defined in subpart E) does not require access or proximity to or sittingsiting within the special aquatic site in question to fulfill its basic purpose (i.e., inis not "water dependent"), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise
- (b) No discharge of dredged or fill material shall be permitted if it:
 - (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard;
 - (2) Violates any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act;
- (c) No discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the state. Under these Guidelines, effects contributing to significant degradation considered individually or collectively, include:
 - (1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites;
 - (2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread

⁴³¹⁸ Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes.
 - (3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
 - (4) Significantly adverse effects of the discharge of pollutants on recreational, aesthetic, and economic values.
 - (d) No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. Subpart H identifies such possible steps.

Subpart E-<u>-</u>Potential Impacts on Special Aquatic Sites

- 729 § 230.40 Sanctuaries and refuges¹⁴19
- 730 (a) Sanctuaries and refuges consist of areas designated under State and Federal laws or local
- ordinances to be managed principally for the preservation and use of fish and wildlife resources.
- 732 § 230.41 Wetlands.

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- 733 (a)(1) Wetlands consist of areas that are inundated or saturated by surface or groundwater at a frequency
- 734 and duration sufficient to support, and under normal circumstances do support, a prevalence of
- 735 vegetation typically adapted for life in saturated soil conditions, are as defined above in the main text of
- 736 these Procedures.
- 737 § 230.42 Mud Flats.
- 738 (a) Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influence
- and inland lakes, ponds, and riverine systems. When mud flats are inundated, wind and wave action may
- 740 resuspend bottom sediments. Coastal mud flats are exposed at extremely low tides and inundated at
- 741 high tides with the water table at or near the surface of the substrate. The substrate of mud flats contains
- organic material and particles smaller in size than sand. They are either unvegetated or vegetated only
- 743 by algal mats.
- 744 § 230.43 Vegetated shallows.
- 745 (a) Vegetated shallows are permanently inundated areas that under normal circumstances support
- communities of rooted aquatic vegetation, such as turtle grass and eel grass in estuarine or marine
- 747 systems as well as a number of freshwater species in rivers and lakes.
- 748 § 230.45 Riffle and Pool Complexes.
- 749 (a) Steep gradient sections of streams are sometimes characterized by riggleriffle and pool
- 750 complexes. Such stream sections are recognizable by their hydraulic characteristics. The rapid
- movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high

¹⁴19 Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are
- characterized by a slower stream velocity, a streaming flow, a smooth surface, and a finer substrate.
- Riffle and pool complexes are particularly valuable habitat for fish and wildlife.

Subpart H – Actions to Minimize Adverse Effects

- Note: There are many actions which can be undertaken in response to 230.10(d) to minimize the adverse effects of discharges of dredged or fill material. Some of these, grouped by type of activity, are listed in this subpart. Additional criteria for compensation measures are provided in subpart J of this
- 759 Policy.these procedures.

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- 760 § 230.70 Actions concerning the location of the discharge.
- The effects of the discharge can be minimized by the choice of the disposal site. Some of the ways to accomplish this are by:
 - (a) Locating and confining the discharge to minimize smothering of organisms;
 - (b) Designing the discharge to avoid a disruption of periodic water inundation patterns;
 - (c) Selecting a disposal site that has been used previously for dredged material discharge;
 - (d) Selecting a disposal site at which the substrate is composed of material similar to that being discharged, such as discharging sand on sand or mud on mud;
- (e) Selecting a disposal site, the discharge point, and the method of discharge to minimize the extent of any plume;
 - (f) Designing the discharge of dredged or fill material to minimize or prevent the creation of standing bodies of water in areas of normally fluctuating water levels, and minimize or prevent the drainage of areas subject to such fluctuations.
- 773 § 230.71 Actions concerning the material to be discharged 4520
- The effects of a discharge can be minimized by treatment of, or limitations on the material itself, such as:
 - (a) Disposal of dredged material in such a manner that physiochemical conditions are maintained and the potency and availability of pollutants are reduced.
 - (b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular site;
- 779 (c) Adding treatment substances to the discharge material;
- 780 (d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked disposal areas.
- 782 § 230.72 Actions controlling the material after discharge.
- The effects of the dredged or fill material after discharge may be controlled by:

⁴⁵20 Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- (a) Selecting discharge methods and disposal sites where the potential for erosion, slumping or
 leaching of materials into the surrounding aquatic ecosystem will be reduced. These sites or methods
 include, but are not limited to:
 - (1) Using containment levees, sediment basins, and cover crops to reduce erosions:
 - (2) Using lined containment areas to reduce leaching where leaching of chemical constituents from the discharged material is expected to be a problem;
 - (b) Capping in-place contaminated material with clean material or selectively discharging the most contaminated material first to be capped with the remaining material;
 - (c) Maintaining and containing discharged material properly to prevent point and nonpoint sources of pollution;
 - (d) Timing the discharge to minimize impact, for instance during periods of unusual high water flows, wind, wave, and tidal actions.
 - § 230.73 Actions affecting the method of dispersion.
 - The effects of a discharge can be minimized by the manner in which it is dispersed, such as:
 - (a) Where environmentally desirable, distributing the dredged material widely in a thin layer at the disposal site maintain natural substrate contours and elevation;
 - (b) Orienting a dredged or fill material mound to minimize undesirable obstruction to the water current or circulation pattern, and utilizing natural bottom contours to minimize the size of the mound;
 - (c) Using silt screens or other appropriate methods to confine suspended particulate/turbidity to a small area where settling or removal can occur;
 - (d) Making use of currents and circulation patterns to mix, disperse and dilute the discharge;
 - (e) Minimizing water column turbidity by using a submerged diffuser system. A similar effect can be accomplished by submerging pipeline discharges or otherwise releasing materials near the bottom;
 - (f) Selecting sites or managing discharges to confine and minimize the release of suspended particulates to give decreased turbidity levels and to maintain light penetration for organisms;
 - (g) Setting limitations on the amount of material to be discharged per unit of time or volume of receiving water.
- § 230.74 Actions related to technology.
 - Discharge technology should be adapted to the needs of each site. In determining whether the discharge operation sufficiently minimizes adverse environmental impacts, the applicant should consider:
 - (a) Using appropriate equipment or machinery, including protective devices, and the use of such equipment or machinery in activities related to the discharge erof dredged or fill material;
 - (b) Employing appropriate maintenance and operation on equipment or machinery, including adequate training, staffing, and working procedures;
- (c) Using machinery and techniques that are especially designed to reduce damage to wetlands. This may include machines equipped with devices that scatter rather than mound excavated materials,

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- machines with specially designed wheels or tracks, and the use of mats under heavy machines to reduce wetland surface compaction and rutting;
 - (d) Designing access roads and channels spanning structures using culverts, open channels, and diversions that will pass both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement;
 - (e) Employing appropriate machinery and methods of transport of the material for discharge.
 - § 230.75 Actions affecting plant and animal populations. 4621
 - Minimization of adverse effects on populations of plant and animals can be achieved by:
 - (a) Avoiding changes in water current and circulation patterns which would interfere with the movement of animals;
 - (b) Selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species which have a competitive edge ecologically over indigenous plants or animals;
 - (c) Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;
 - (d) Using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics. Habitat development and restoration techniques can be used to minimize adverse impacts and to compensate for destroyed habitat. Additional criteria for compensation measures are provided in subpart J of this part. Use techniques that have been demonstrated to be effective in circumstances similar to those under consideration wherever possible. Where proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiate their use on a small scale to allow corrective action if unanticipated adverse impacts occur;
 - (e) Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;
 - (f) Avoiding the destruction of remnant natural sites within areas already affected by development.
 - § 230.76 Actions affecting human use.
 - Minimization of adverse effects on human use potential may be achieved by:
 - (a) Selecting discharge sites and following discharge procedures to prevent or minimize any potential damage to the aesthetically pleasing features of the aquatic site (e.g. viewscapes), particularly with respect to water quality;
 - (b) Selecting disposal sites which are not valuable as natural aquatic areas;
 - (c) Timing the discharge to avoid the seasons or periods when human recreational activity associated with the aquatic site is most important;

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- (d) Following discharge procedures which avoid or minimize the disturbance of aesthetic features on an aquatic site or ecosystem;
 - (e) Selecting sites that will not be detrimental or increase incompatible human activity, or require the need for frequent dredge or fill maintenance activity in remote fish and wildlife areas;
 - (f) Locating the disposal site outside of the vicinity of a public water supply intake.
 - § 230.77 Other actions.

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- (a) In the case of fills, controlling runoff and other discharges from activities to be conducted on the fill;
- (b) In the case of dams, designing water releases to accommodate the needs orof fish and wildlife;
- (c) In dredging projects funded by Federal agencies other than the Corps of Engineers, maintain desired water quality of the return discharge through agreement with the Federal funding authority on scientifically defensible pollutant concentration levels in addition to any applicable water quality standards;
- (d) When a significant ecological change in the aquatic environment is proposed by the discharge <u>erof</u> dredged or fill material, the permitting authority should consider the ecosystem that will be lost as well as the environmental benefits of the new system.

Subpart J - Compensatory Mitigation for Losses of Aquatic Resources 4722

- § 230.91 Purpose and general considerations.
- (a) Purpose.
 - (1) The purpose of this subpart is to establish standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee-responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the state authorized through the issuance of permitsOrders.
 - (d) Accounting for regional variations. Where appropriate, the permitting authority shall account for regional characteristics of aquatic resource types, functions and services when determining performance standards and monitoring requirements for compensatory mitigation projects.
- § 230.92 Definitions. 1823
 - For the purposes of this subpart, the following terms are defined:
 - Adaptive management means the development of a management strategy that anticipates likely challenges associated with compensatory mitigation projects and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those projects. It requires consideration of the risk, uncertainty, and dynamic nature of compensatory mitigation projects and

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

guides modification of those projects to optimize performance. It includes the selection of appropriate measures that will ensure that the aquatic resource functions are provided and involves analysis of monitoring results to identify potential problems of a compensatory mitigation project and the identification and implementation of measures to rectify those problems.

- Buffer means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with waters of the state from disturbances associated with adjacent land uses.
- Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.
- Compensatory mitigation project means compensatory mitigation implemented by the permittee as a requirement of <u>a permitan Order</u> (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu fee program.
- Condition means the relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.
- Credit means a unit of measure (e.g., a functional or areal measure or other suitable metric)
 representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The
 measure of aquatic functions is based on the resources restored, established, enhanced, or preserved.
- 906 Days means calendar days.
- 907 <u>Debit means a unit of measure (e.g., a functional or areal measure or other suitable metric)</u>
 908 <u>representing the loss of aquatic functions at an impact or project site. The measure of aquatic functions</u>
 909 <u>is based on the resources impacted by the authorized activity.</u>
- Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s).
- Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource
- 914 area. 4924

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- Establishment (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.
- Functional capacity means the degree to which an area of aquatic resource performs a specific function.
- 920 Functions means the physical, chemical, and biological processes that occur in ecosystems.
- 921 Impact means adverse effect.
- 922 <u>In-kind means a resource of a similar structural and functional type to the impacted resource.</u>

¹⁹24/24 Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

In-lieu fee program means a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for permittsOrders. Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor. However, the rules governing the operation and use of in-lieu fee programs are somewhat different from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu fee program are governed by an in-lieu fee program instrument.

- In-lieu fee program instrument means the legal document for the establishment, operation, and use of an in-lieu fee program.
- Instrument means mitigation banking instrument or in-lieu fee program instrument.
- Mitigation bank means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by permitsOrders. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.
- 940 <u>Mitigation banking instrument means the legal document for the establishment, operation, and use of</u> 941 <u>an in-lieu fee program.</u>
- Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a parcel of land contiguous to the parcel containing the impact site.
- On-site means an area located on the same parcel of land as the impact site, or on a parcel of land contiguous to the impact site.
- Out-of-kind means a resource of a different structural and functional type from the impacted resource.
- Performance standards are observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives. 2025
- Permittee-responsible mitigation means an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.
 - Preservation means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.
- Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Reference aquatic resources are a set of aquatic resources that represent the full range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.

Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riparian areas are lands adjacent to waters of the state. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality.

973 Service area means the geographic area within which impacts can be mitigated at a specific mitigation 974 bank or an in-lieu fee program, as designated in its instrument.

975 Services mean the benefits that human populations receive from functions that occur in ecosystems.

976 Sponsor means any public or private entity responsible for establishing, and in most circumstances, operating a mitigation bank or in-lieu fee program.

Temporal loss is the time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. Higher compensation ratios may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, the permitting authority may determine that compensation for temporal loss is not necessary, unless the resource has a long development time.

Watershed means a land area that drains to a common waterway, such as a stream, lake, estuary, wetland, or ultimately the ocean. ²⁴26

Watershed approach is defined above in the main text of the Policythese Procedures.

Watershed plan means a plan developed by federal, tribal, state, and/or local government agencies or appropriate non-governmental organizations, in consultation with relevant stakeholders, for the specific goal of aquatic resource restoration, establishment, enhancement, and preservation. A watershed plan addresses aquatic resource conditions in the watershed, multiple stakeholder interests, and land uses.

Watershed plans may also identify priority sites for aquatic resource restoration and protection.

Examples of watershed plans include special area management plans, advance identification
 programs, and wetland management plans.is defined above in the main text of these Procedures.

§ 230.93 General compensatory mitigation requirements.

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

(a) General Considerations.

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- (1) The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the state authorized by permitsOrders. The permitting authority must determine the compensatory mitigation to be required in a permitan Order, based on what would be environmentally preferable. In making this determination, the permitting authority must assess the likelihood for ecological success and sustainability, and the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project. In many cases, the environmentally preferable compensatory mitigation may be provided through mitigation banks or in-lieu fee programs because they usually involve consolidating compensatory mitigation projects where ecologically appropriate, consolidating resources, providing financial planning and scientific expertise (which often is not practical for permittee-responsible compensatory mitigation projects), reducing temporal losses of functions, and reducing uncertainty over project success. Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular permitOrder. Permit applicants Applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts.
- (2) Compensatory mitigation may be performed using methods or restoration, enhancement, establishment, and in certain circumstances preservation. Restoration should generally be the first option considered because the likelihood of success is greater and the impacts to potentially ecologically important uplands are reduced compared to establishment, and the potential gains in terms of aquatic resource functions are greater, compared to enhancement and preservation.
- (3) Compensatory mitigation projects may be sited on public or private lands. Credits for compensatory mitigation projects on public land must be based solely on aquatic resource functions provided by the compensatory mitigation project, over and above those provided by public programs already planned or in place. All compensatory mitigation projects must comply with the standards in section IV of this Policythese Procedures, if they are to be used to provide compensatory mitigation for activities authorized by permitsOrders, regardless of whether they are sited on public or private lands and whether the sponsor is a governmental or private entity.
- (b) Type and location of compensatory mitigation. 2227
 - (1) In general, the required compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions and services, taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the availability of water rights), trends in land use, ecological benefits, and compatibility with adjacent land uses. When compensating for impacts to marine resources, the location of the compensatory mitigation

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

site should be chosen to replace lost functions and services within the same marine ecological system (e.g., reef complex, littoral drift cell). Compensation for impacts to aquatic resources in coastal watersheds (watersheds that include a tidal water body) should also be located in a coastal watershed where practicable. Compensatory mitigation projects should not be located where they will increase risks to aviation by attracting wildlife to areas where aircraft-wildlife strikes may occur (e.g., near airports).

- (2) Mitigation bank credits. When permitted impacts are located within the service area of an approved mitigation bank, and the bank has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor. Since an approved instrument (including an approved mitigation plan and appropriate real estate and financial assurances) for a mitigation bank is required to be in place before its credits can begin to be used to compensate for authorized impacts, use of a mitigation bank can help reduce risk and uncertainty, as well as temporal loss of resource functions and services. Mitigation bank credits are not released for debiting until specific milestones associated with the mitigation bank site's protection and development are achieved. thus use of mitigation bank credits can also help reduce risk that mitigation will not be fully successful. Mitigation banks typically involve larger, more ecologically valuable parcels, and more rigorous scientific and technical analysis, planning and implementation than permittee-responsible mitigation. Also, development of a mitigation bank requires site identification in advance, project-specific planning, and significant investment of financial resources that is often not practicable for many in-lieu fee programs. For these reasons, the permitting authority should give preference to the use of mitigation bank credits when these considerations are applicable. However, these same considerations may also be used to override this preference, where appropriate, as, for example, where an in-lieu fee program has released credits available from a specific approved in-lieu fee project, or a permittee-responsible project will restore an outstanding resource based on rigorous scientific and technical analysis.
- (3) In-lieu fee program credits. Where permitted impacts are located within the service area of an approved in-lieu fee program, and the sponsor has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor. Where permitted impacts are not located in the service area of an approved mitigation bank, or the approved mitigation bank does not have the appropriate number and resource type of credits available to offset those impacts, in-lieu fee mitigation, if available, is generally preferable to permittee-responsible mitigation. In-lieu fee projects typically involve larger, more ecologically valuable parcels, and more rigorous scientific and technical analysis, planning and implementation than permittee-responsible mitigation. They also devote significant resources to identifying and addressing high-priority resource needs on a watershed scale, as reflected in their compensation planning framework. For these reasons, the permitting authority should give preference to in-lieu fee program credits over permittee-responsible mitigation, where these considerations are applicable. However, as with the preference for mitigation bank credits, these same considerations may be used to override this preference where appropriate. Additionally, in cases where permittee-responsible mitigation is likely to successfully meet performance standards before advance credits secured from an in-lieu fee program are fulfilled. the permitting authority should also give consideration to this factor in deciding between in-lieu fee mitigation and permittee-responsible mitigation.

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- (4) Permittee-responsible mitigation under a watershed approach. Where permitted impacts are not in the service area of an approved mitigation bank or in-lieu fee program that has the appropriate number and resource type of credits available, permittee-responsible mitigation is the only option. Where practicable and likely to be successful and sustainable, the resource type and location for the required permittee-responsible compensatory mitigation should be determined using the principles of a watershed approach as outlined in paragraph (c) of this section.
- (5) Permittee-responsible mitigation through on-site and in-kind mitigation. In cases where a watershed approach is not practicable, the permitting authority should consider opportunities to offset anticipated aquatic resource impacts by requiring on-site and in-kind compensatory mitigation. The permitting authority must also consider the practicability of on-site compensatory mitigation and its compatibility with the proposed project.
- (6) Permittee-responsible mitigation through off-site and/or out-of-kind mitigation. If, after considering opportunities for on-site, in-kind compensatory mitigation as provided in paragraph (b)(5) of this section, the permitting authority determines that these compensatory mitigation opportunities are not practicable, are unlikely to compensate for the permitted impacts, or will be incompatible with the proposed project, and an alternative, practicable off-site and/or out-of-kind mitigation opportunity is identified that has a greater likelihood of offsetting the permitted impacts or is environmentally preferable to on-site or in-kind mitigation, the permitting authority should require that this alternative compensatory mitigation be provided.
- (c) Watershed approach to compensatory mitigation. 2328
 - (1) The permitting authority must use a watershed approach to establish compensatory mitigation requirements in permitting as described in the main text of the PelicyProcedures. Where a watershed plan is available, the permitting authority will determine whether the plan meets the definition of watershed plan in the PelicyProcedures and therefore is appropriate for use in the watershed approach for compensatory mitigation. In cases where the permitting authority determines that an appropriate watershed plan is available, the watershed approach should be based on that plan. Where no such plan is available, the watershed approach should be based on information provided by the project sponsor or available from other sources. The ultimate goal of a watershed approach is to maintain and improve the abundance, diversity, and condition of aquatic resources within watersheds through strategic selection of compensatory mitigation sites.
 - (2) Considerations.
 - (i) A watershed approach to compensatory mitigation considers the importance of condition, landscape position and resource type of compensatory mitigation projects for the sustainability of aquatic resource functions within the watershed. Such an approach considers how the condition, types, and locations of compensatory mitigation projects will provide the desired

²³²⁸ Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

aquatic resource functions, and will continue to function over time in a changing landscape. It also considers the habitat requirements of important species, habitat loss or conversion trends, sources of watershed impairment, and current development trends, as well as the requirements of other regulatory and non-regulatory programs that affect the watershed, such as storm water management or habitat conservation programs. It includes the protection and maintenance of terrestrial resources, such as non-wetland riparian areas and uplands, when those resources contribute to or improve the overall ecological functioning of aquatic resources in the watershed. Compensatory mitigation requirements determined through the watershed approach should not focus exclusively on specific functions (e.g., water quality or habitat for certain species), but should provide, where practicable, the suite of functions typically provided by the affected aquatic resource.

- (ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of compensatory mitigation for impacted habitat functions and may lead to siting of such mitigation away from the project area. However, consideration should also be given to functions and services (e.g., water quality, flood control, shoreline protection) that will likely need to be addressed at or near the areas impacted by the permitted impacts. ²⁴²⁹
- (iii) A watershed approach may include on-site compensatory mitigation, off-site compensatory mitigation (including mitigation banks or in-lieu fee programs), or a combination of on-site and off-site compensatory mitigation.
- (iv) A watershed approach to compensatory mitigation should include, to the extent practicable, inventories of historic and existing aquatic resources, including identification of degraded aquatic resources, and identification of immediate and long-term aquatic resource needs within watersheds that can be met through permittee-responsible mitigation projects, mitigation banks, or in-lieu fee programs. Planning efforts should identify and prioritize aquatic resource restoration, establishment, and enhancement activities, and preservation of existing aquatic resources that are important for maintaining or improving ecological functions of the watershed. The identification and prioritization of resource needs should be as specific as possible, to enhance the usefulness of the approach in determining compensatory mitigation requirements.
- (v) A watershed approach is not appropriate in areas where watershed boundaries do not exist, such as marine areas. In such cases, an appropriate spatial scale should be used to replace lost functions and services within the same ecological system (e.g., reef complex, littoral drift cell).
- (3) Information Needs.

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

(i) In the absence of a watershed plan determined by the permitting authority under paragraph (c)(1) of this section to be appropriate for use in the watershed approach, the permitting authority will use a watershed approach based on analysis of abundance, diversity, and condition of aquatic resources in a watershed, and information regarding watershed conditions (as identified in the watershed profile) and needs, including potential sites for aquatic resource restoration activities and priorities for aquatic resource restoration and preservation. Such information includes: Current trends in habitat loss or conversion; cumulative impacts of past development activities, current development trends, the presence and needs of sensitive species; site conditions that favor or hinder the success of compensatory mitigation projects; and chronic environmental problems such as flooding or poor water quality. (ii) This information may be available from sources such as wetland maps; soil surveys; U.S. Geological Survey topographic and hydrologic maps; aerial photographs; information on rare, endangered and threatened species and critical habitat; local ecological reports or studies; and other information sources that could be used to identify locations for suitable compensatory mitigation projects in the watershed. (iii) The level of information and analysis needed to support a watershed approach must be commensurate with the scope and scale of the proposed impacts requiring a permitan Order, as well as the functions lost as a result of those impacts. (4) Watershed Scale. The size of watershed addressed using a watershed approach should not be larger than is appropriate to ensure that the aquatic resources provided through compensation activities will effectively compensate for adverse environmental impacts resulting from activities authorized by permits. Orders. The permitting authority should consider relevant environmental factors and appropriate locally-developed standards and criteria when determining the appropriate watershed scale in guiding compensation activities. (d) Site selection. 2530 (1) The compensatory mitigation project site must be ecologically suitable for providing the desired aquatic resource functions. In determining the ecological suitability of the compensatory mitigation project site, the permitting authority must consider, to the extent practicable, the following factors: (i) Hydrological conditions, soil characteristics, and other physical and chemical characteristics;

(ii) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and other

landscape scale functions:

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

177 (iii) The size and location of the compensatory mitigation site relative to hydrologic sources 178 (including the availability of water rights) and other ecological features; 179 (iv) Compatibility with adjacent land uses and watershed management plans; 180 (v) Reasonably foreseeable effects the compensatory mitigation project will have on 181 ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature 182 forests), cultural sites, or habitat for federally- or state-listed threatened and endangered species; and 183 184 (vi) Other relevant factors including, but not limited to, development trends, anticipated land 185 use changes, habitat status and trends, the relative locations of the impact and mitigation sites 186 in the stream network, local or regional goals for the restoration or protection of particular 187 habitat types or functions (e.g., re-establishment of habitat corridors or habitat for species of concern), water quality goals, floodplain management goals, and the relative potential for 188 189 chemical contamination of the aquatic resources. 190 (2) Permitting authorities may require on-site, off-site, or a combination of on-site and off-site 191 compensatory mitigation to replace permitted losses of aquatic resource functions and services. 192 (3) Applicants should propose compensation sites adjacent to existing aquatic resources or 193 where aquatic resources previously existed. 194 (e) Mitigation type. 195 (1) In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to 196 compensate for the functions and services lost at the impact site. For example, tidal wetland 197 compensatory mitigation projects are most likely to compensate for unavoidable impacts to tidal 198 wetlands, while perennial stream compensatory mitigation projects are most likely to compensate for unavoidable impacts to perennial streams. Thus, except as provided in paragraph (e)(2) of 199 200 this section, the required compensatory mitigation shall be of a similar type to the affected aquatic 201 resource. 202 (2) If the permitting authority determines, using the watershed approach in accordance with 203 paragraph (c) of this section that out-of-kind compensatory mitigation will serve the aquatic resource needs of the watershed, the permitting authority may authorize the use of such 204 out-of-kind compensatory mitigation. The basis for authorization of out-of-kind compensatory 205 206 mitigation must be documented in the administrative record for the permitOrder action. 207 (3) For difficult-to-replace resources (e.g., bogs, fens, springs, streams, vegetated seasonal 208 wetlands, slope and seep wetlands, vernal pools, and wet meadows) if further avoidance and 209 minimization is not practicable, the required compensation should be provided, if practicable, 210 through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that 211 these methods of compensation will successfully offset permitted impacts.

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

212 (f) Amount of compensatory mitigation. 213 (1) If the permitting authority determines that compensatory mitigation is necessary to offset 214 unavoidable impacts to aquatic resources, the amount of required compensatory mitigation must 215 be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases where 216 appropriate functional or condition assessment methods or other suitable metrics are available, these methods should be used where practicable to determine how much compensatory 217 218 mitigation is required. If a functional or condition assessment or other suitable metric is not used, 219 a minimum one-to-one acreage or linear foot compensation ratio must be used. 220 (2) The permitting authority must require a mitigation ratio greater than one-to-one where 221 necessary to account for the method of compensatory mitigation (e.g., preservation), the 222 likelihood of success, differences between the functions lost at the impact site and the functions expected to be produced by the compensatory mitigation project, temporal losses of aquatic 223 224 resource functions, the difficulty of restoring or establishing the desired aquatic resource type and functions, and/or the distance between the affected aquatic resource and the compensation site. 225 226 The rationale for the required replacement ratio must be documented in the administrative record 227 for the permitOrder action. 228 (3) If an in-lieu fee program will be used to provide the required compensatory mitigation, and the 229 appropriate number and resource type of released credits are not available, the permitting 230 authority must require sufficient compensation to account for the risk and uncertainty associated with in-lieu fee projects that have not been implemented before the permitted impacts have 231 232 occurred. (g) Use of mitigation banks and in-lieu fee programs. Mitigation banks and in-lieu fee programs may 233 234 be used to compensate for impacts to aquatic resources authorized by general permitsOrders and 235 individual permitsOrders in accordance with the preference hierarchy in paragraph (b) of this section. 236 Mitigation banks and in-lieu fee programs may also be used to satisfy requirements arising out of an 237 enforcement action, such as supplemental environmental projects. (h) Preservation. 2631 238 239 (1) Preservation may be used to provide compensatory mitigation for activities authorized by permitsOrders when all the following criteria are met: 240 (i) The resources to be preserved provide important physical, chemical, or biological functions 241 242 for the watershed: 243 (ii) The resources to be preserved contribute significantly to the ecological sustainability of the

watershed. In determining the contribution of those resources to the ecological sustainability of

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

245 the watershed, the permitting authority must use appropriate quantitative assessment tools 246 where available; 247 (iii) Preservation is determined by the permitting authority to be appropriate and practicable: 248 (iv) The resources are under threat of destruction or adverse modifications; and 249 (v) The preserved site will be permanently protected through an appropriate real estate or other 250 legal instrument (e.g., easement, title transfer to state resource agency or land trust). (2) Where preservation is used to provide compensatory mitigation, to the extent appropriate and 251 252 practicable the preservation shall be done in conjunction with aquatic resource restoration, 253 establishment, and/or enhancement activities. This requirement may be waived by the permitting authority where preservation has been identified as a high priority using a watershed approach 254 255 described in paragraph (c) of this section, but compensation ratios shall be higher. 256 (i) Buffers. The permitting authority may require the restoration, establishment, enhancement, 257 and preservation, as well as the maintenance, of riparian areas and/or buffers around aquatic 258 resources where necessary to ensure the long-term viability of those resources. Buffers may 259 also provide habitat or corridors necessary for the ecological functioning of aquatic resources. 260 If buffers are required by the permitting authority as part of the compensatory mitigation 261 project, compensatory mitigation credit will be provided for those buffers, as provided in section 262 IV B.75 (ac). 263 (i) Relationship to other federal, tribal, state, and local programs. 264 (1) Compensatory mitigation projects for permitsOrders may also be used to satisfy the 265 environmental requirements of other programs, such as tribal, state, or local wetlands regulatory programs, other federal programs such as the Surface Mining Control and Reclamation Act. 266 Corps civil works projects, and Department of Defense military construction projects, consistent 267 268 with the terms and requirements of these programs and subject to the following considerations: 269 (i) The compensatory mitigation project must include appropriate compensation required by 270 the permitOrder for unavoidable impacts to aquatic resources authorized by that permitOrder. 271 (ii) Under no circumstances may the same credits be used to provide mitigation for more than one permitted activity. However, where appropriate, compensatory mitigation projects, 272 273 including mitigation banks and in-lieu fee projects, may be designed to holistically address 274 requirements under multiple programs and authorities for the same activity. 275 (2) Except for projects undertaken by federal agencies, or where federal funding is specifically 276 authorized to provide compensatory mitigation, federally-funded aquatic resource restoration or 277 conservation projects undertaken for purposes other than compensatory mitigation, such as the 278 Wetlands Reserve Program, Conservation Reserve Program, and Partners for Wildlife Program

activities, cannot be used for the purpose of generating compensatory mitigation credits for

Procedures for Discharges of Dredged or Fill Materials to Waters of the State

activities authorized by permitsOrders. However, compensatory mitigation credits may be 280 281 generated by activities undertaken in conjunction with, but supplemental to, such programs in 282 order to maximize the overall ecological benefits of the restoration or conservation project. 283 (3) Compensatory mitigation projects may also be used to provide compensatory mitigation under 284 the federal and state Endangered Species Act or for Natural Community Conservation Plans and Habitat Conservation Plans, as long as they comply with the requirements of paragraph (i)(1) of 285 286 this section. 287 (k) PermitOrder conditions. 288 (1) The compensatory mitigation requirements for a permitan Order, including the amount and 289 type of compensatory mitigation, must be clearly stated in the special conditions of the individual 290 permitOrder or authorization to use the general permit. Order. The special conditions must be enforceable. 2732 291 292 (2) For a permitan Order that requires permittee-responsible mitigation, the special conditions must: 293 294 (i) Identify the party responsible for providing the compensatory mitigation; 295 (ii) Incorporate, by reference, the final or draft mitigation plan approved by the permitting 296 authority; 297 (iii) State the objectives, performance standards, and monitoring required for the compensatory mitigation project, unless they are provided in the approved final mitigation plan; 298 299 and 300 (iv) Describe any required financial assurances or long-term management provisions for the 301 compensatory mitigation project, unless they are specified in the approved final mitigation plan. 302 (4) If a mitigation bank or in-lieu fee program is used to provide the required compensatory 303 mitigation, the special conditions must indicate whether a mitigation bank or in-lieu fee program will be used, and specify the number and resource type of credits the permittee is required to 304 305 secure. In the case of an individual permitOrder, the special condition must also identify the 306 specific mitigation bank or in-lieu fee program that will be used. For authorizations to use a 307 general permitOrder, the special conditions may either identify the specific mitigation bank or 308 in-lieu fee program, or state that the specific mitigation bank or in-lieu fee program used to provide

the required compensatory mitigation must be approved by the permitting authority before the

credits are secured.

309

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

311 (I) Party responsible for compensatory mitigation.

- (1) For permittee-responsible mitigation, the special conditions of the <u>permitOrder</u> must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.
- (2) For mitigation banks and in-lieu fee programs, the instrument must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project(s). The instrument must also contain a provision expressing the sponsor's agreement to assume responsibility for a permittee's compensatory mitigation requirements, once that permittee has secured the appropriate number and resource type of credits from the sponsor and the permitting authority has received the documentation described in paragraph (I)(3) of this section.
- (3) If use of a mitigation bank or in-lieu fee program is approved by the permitting authority to provide part or all of the required compensatory mitigation for a permitan Order, the permittee retains responsibility for providing the compensatory mitigation until the appropriate number and resource type of credits have been secured from a sponsor and the permitting authority has received documentation that confirms that the sponsor has accepted the responsibility for providing the required compensatory mitigation. This documentation may consist of a letter or form signed by the sponsor, with the permitOrder number and a statement indicating the number and resource type of credits that have been secured from the sponsor. Copies of this documentation will be retained in the administrative records for both the permitOrder and the instrument. If the sponsor fails to provide the required compensatory mitigation, the permitting authority may pursue measures against the sponsor to ensure compliance. 2833
- (m) Timing. Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts. The permitting authority shall require, to the extent appropriate and practicable, additional compensatory mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.
- (n) Financial assurances.
 - (1) The permitting authority shall require sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. In cases where an alternate mechanism is available to ensure a high level of confidence that the compensatory mitigation will be provided and maintained (e.g., a formal, documented commitment from a government agency or public authority) the permitting authority may determine that financial assurances are not necessary for that compensatory mitigation project.

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- (2) The amount of the required financial assurances must be determined by the permitting authority, in consultation with the project sponsor, and must be based on the size and complexity of the compensatory mitigation project, the degree of completion of the project at the time of project approval, the likelihood of success, the past performance of the project sponsor, and any other factors the permitting authority deems appropriate. Financial assurances may be in the form of performance bonds, escrow accounts, casualty insurance, letters of credit, legislative appropriations for government sponsored projects, or other appropriate instruments, subject to the approval of the permitting authority. The rationale for determining the amount of the required financial assurances must be documented in the administrative record for either the permitOrder or the instrument. In determining the assurance amount, the permitting authority shall consider the cost of providing replacement mitigation, including costs for land acquisition, planning and engineering, legal fees, mobilization, construction, and monitoring.
- (3) If financial assurances are required, the <u>permitOrder</u> must include a special condition requiring the financial assurances to be in place prior to commencing the permitted activity. ²⁹³⁴
- (4) Financial assurances shall be phased out once the compensatory mitigation project has been determined by the permitting authority to be successful in accordance with its performance standards. The permitOrder or instrument must clearly specify the conditions under which the financial assurances are to be released to the permittee, sponsor, and/or other financial assurance provider, including, as appropriate, linkage to achievement of performance standards, adaptive management, or compliance with special conditions.
- (5) A financial assurance must be in a form that ensures that the permitting authority will receive notification at least 120 days in advance of any termination or revocation. For third-party assurance providers, this may take the form of a contractual requirement for the assurance provider to notify the permitting authority at least 120 days before the assurance is revoked or terminated.
- (6) Financial assurances shall be payable at the direction of the permitting authority to his designee or to a standby trust agreement. When a standby trust is used (e.g., with performance bonds or letters of credit) all amounts paid by the financial assurance provider shall be deposited directly into the standby trust fund for distribution by the trustee in accordance with the permitting authority's instructions.
- (o) Compliance with applicable law. The compensatory mitigation project must comply with all applicable federal, state, and local laws. The permitOrder, mitigation banking instrument, or in-lieu fee program instrument must not require participation by the permitting authority in project management, including receipt or management of financial assurances or long-term financing mechanisms, except as determined by the permitting authority to be consistent with its statutory authority, mission, and priorities.

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

§ 230.94 Planning and documentation.

- (a) Pre-application consultations. Potential applicants for <u>permitsOrders</u> are encouraged to participate in pre-application meetings with the permitting authority and appropriate agencies to discuss potential mitigation requirements and information needs.
- (c) Mitigation plan.

- (1) Preparation and Approval.
 - (i) For individual permitsOrders, the permittee must prepare a draft mitigation plan and submit it to the permitting authority for review prior to certification. After addressing any comments provided by the permitting authority, the permittee must prepare a final mitigation plan, which must be approved by the permitting authority prior to commencing work in waters of the state. The approved final mitigation plan must be incorporated into the individual permitOrder either as an attachment or by reference. The final mitigation plan must include the items described in paragraphs (c)(2) through (c)(14) of this section, but the level of detail of the mitigation plan should be commensurate with the scale and scope of the impacts. As an alternative, the permitting authority may determine that it would be more appropriate to address any of the items described in paragraphs (c)(2) through (c)(14) of this section as permitOrder conditions, instead of components of a compensatory mitigation plan. For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items described in paragraphs (c)(5) and (c)(6) of this section, and the name of the specific mitigation bank or in-lieu fee program to be used. 3035
 - (ii) For general permitsOrders, if compensatory mitigation is required, the permitting authority may approve a conceptual or detailed compensatory mitigation plan to meet required time frames for general permitOrder enrollments, but a final mitigation plan incorporating the elements in paragraphs (c)(2) through (c)(14) of this section, at a level of detail commensurate with the scale and scope of the impacts, must be approved by the permitting authority before the permittee commences work in waters of the state. As an alternative, the permitting authority may determine that it would be more appropriate to address any of the items described in paragraphs (c)(2) through (c)(14) of this section as permitOrder conditions, instead of components of a compensatory mitigation plan. For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items described in paragraphs (c)(5) and (c)(6) of this section, and either the name of the specific mitigation bank or in-lieu fee program to be used or a statement indicating that a mitigation bank or in-lieu fee program will be used (contingent upon approval by the permitting authority).
- (2) Objectives. A description of the resource type(s) and amount(s) that will be provided, the method of compensation (i.e., restoration, establishment, enhancement, and/or preservation), and the manner in which the resource functions of the compensatory mitigation project will

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

address the needs of the watershed, ecoregion, physiographic province, or other geographic area of interest.

- (3) Site selection. A description of the factors considered during the site selection process. This should include consideration of watershed needs, on-site alternatives where applicable, and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement, and/or preservation at the compensatory mitigation project site. (See § 230.93(d).)
- (4) Site protection instrument. A description of the legal arrangements and instrument, including site ownership, that will be used to ensure the long-term protection of the compensatory mitigation project site (see $\S 230.97(a)$). 3436
- (5) Baseline information. A description of the ecological characteristics of the proposed compensatory mitigation project site and, in the case of an application for a permitan Order, the impact site. This may include descriptions of historic and existing plant communities, historic and existing hydrology, soil conditions, a map showing the locations of the impact and mitigation site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information should also include a delineation of waters of the state on the proposed compensatory mitigation project site. A prospective permittee planning to secure credits from an approved mitigation bank or in-lieu fee program only needs to provide baseline information about the impact site, not the mitigation bank or in-lieu fee project site.
- (6) Determination of credits. A description of the number of credits to be provided, including a brief explanation of the rationale for this determination. (See § 230.93(f).)
 - (i) For permittee-responsible mitigation, this should include an explanation of how the compensatory mitigation project will provide the required compensation for unavoidable impacts to aquatic resources resulting from the permitted activity.
 - (ii) For permittees intending to secure credits from an approved mitigation bank or in-lieu fee program, it should include the number and resource type of credits to be secured and how these were determined.
- (7) Mitigation work plan. Detailed written specifications and work descriptions for the compensatory mitigation project, including, but not limited to, the geographic boundaries of the project; construction methods, timing, and sequence; source(s) of water, including connections to existing waters and uplands; methods for establishing the desired plant community; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; soil management; and erosion control measures. For stream compensatory mitigation projects, the mitigation work plan may also include other relevant information, such as planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design discharge, and riparian area plantings.

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- (8) Maintenance plan. A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.
- (9) Performance standards. Ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives. (See § 230.95.)
- (10) Monitoring requirements. A description of parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. A schedule for monitoring and reporting on monitoring results to the permitting authority must be included. (See § 230.96.)³²³⁷
- (11) Long-term management plan. A description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management. (See § 230.97(d).)
- (12) Adaptive management plan. A management strategy to address unforeseen changes in site conditions or other components of the compensatory mitigation project, including the party or parties responsible for implementing adaptive management measures. The adaptive management plan will guide decisions for revising compensatory mitigation plans and implementing measures to address both foreseeable and unforeseen circumstances that adversely affect compensatory mitigation success. (See § 230.97(c).)
- (13) Financial assurances. A description of financial assurances that will be provided and how they are sufficient to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with its performance standards (see § 230.93(n)).
- (14) Other information. The permitting authority may require additional information as necessary to determine the appropriateness, feasibility, and practicability of the compensatory mitigation project.
- § 230.95 Ecological performance standards.
 - (a) The approved mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives. Performance standards should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type, providing the expected condition or functions, and attaining any other applicable metrics (e.g., acres).
 - (b) Performance standards must be based on attributes that are objective and verifiable. Ecological performance standards must be based on the best available science that can be measured or assessed in a practicable manner. Performance standards may be based on variables or measures of functional capacity or condition as described in assessment methodologies, measurements of hydrology or other aquatic resource characteristics, and/or comparisons to reference aquatic resources of similar type and landscape position. The use of reference aquatic resources to establish performance standards will help ensure that those performance standards are reasonably

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

achievable, by reflecting the range of variability exhibited by the regional class of aquatic resources as a result of natural processes and anthropogenic disturbances. Performance standards based on measurements of hydrology should take into consideration the hydrologic variability exhibited by reference aquatic resources, especially wetlands. Where practicable, performance standards should take into account the expected stages of the aquatic resource development process, in order to allow early identification of potential problems and appropriate adaptive management.

§ 230.96 Monitoring. 3338

(a) General.

- (1) Monitoring the compensatory mitigation project site is necessary to determine if the project is meeting its performance standards, and to determine if measures are necessary to ensure that the compensatory mitigation project is accomplishing its objectives. The submission of monitoring reports to assess the development and condition of the compensatory mitigation project is required, but the content and level of detail for those monitoring reports must be commensurate with the scale and scope of the compensatory mitigation project, as well as the compensatory mitigation project type. The mitigation plan must address the monitoring requirements for the compensatory mitigation project, including the parameters to be monitored, the length of the monitoring period, the party responsible for conducting the monitoring, the frequency for submitting monitoring reports to the permitting authority, and the party responsible for submitting those monitoring reports to the permitting authority.
- (2) The permitting authority may conduct site inspections on a regular basis (e.g., annually) during the monitoring period to evaluate mitigation site performance.
- (b) Monitoring period. The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs). Following project implementation, the permitting authority may reduce or waive the remaining monitoring requirements upon a determination that the compensatory mitigation project has achieved its performance standards. Conversely the permitting authority may extend the original monitoring period upon a determination that performance standards have not been met or the compensatory mitigation project is not on track to meet them. The permitting authority may also revise monitoring requirements when remediation and/or adaptive management is required.
- (c) Monitoring reports.
 - (1) The permitting authority must determine the information to be included in monitoring reports. This information must be sufficient for the permitting authority to determine how the compensatory mitigation project is progressing towards meeting its performance standards, and may include plans (such as as-built plans), maps, and photographs to illustrate site conditions. Monitoring reports may also include the results of functional, condition, or other assessments used to provide

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

- quantitative or qualitative measures of the functions provided by the compensatory mitigation project site.
- (2) The permittee or sponsor is responsible for submitting monitoring reports in accordance with the special conditions of the <u>permitOrder</u> or the terms of the instrument. Failure to submit monitoring reports in a timely manner may result in compliance action by the permitting authority.
- (3) Monitoring reports must be provided by the permitting authority to interested federal, tribal, state, and local resource agencies, and the public, upon request.

§ 230.97 Management. 3439

- (a) Site protection.
 - (1) The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall compensatory mitigation project must be provided long-term protection through real estate instruments or other available mechanisms, as appropriate. Long-term protection may be provided through real estate instruments such as conservation easements held by entities such as federal, tribal, state, or local resource agencies, non-profit conservation organizations, or private land managers; the transfer of title to such entities; or by restrictive covenants. For government property, long-term protection may be provided through state or federal facility management plans or integrated natural resources management plans. When approving a method for long-term protection of non-government property other than transfer of title, the permitting authority shall consider relevant legal constraints on the use of conservation easements and/or restrictive covenants in determining whether such mechanisms provide sufficient site protection. To provide sufficient site protection, a conservation easement or restrictive covenant should, where practicable, establish in an appropriate third party (e.g., governmental or non-profit resource management agency) the right to enforce site protections and provide the third party the resources necessary to monitor and enforce these site protections.
 - (2) The real estate instrument, management plan, or other mechanism providing long-term protection of the compensatory mitigation site must, to the extent appropriate and practicable, prohibit incompatible uses (e.g., clear cutting or mineral extraction) that might otherwise jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.
 - (3) The real estate instrument, management plan, or other long-term protection mechanism must contain a provision requiring 60–day advance notification to the permitting authority before any action is taken to void or modify the instrument, management plan, or long-term protection mechanism, including transfer of title to, or establishment of any other legal claims over, the compensatory mitigation site.
 - (4) For compensatory mitigation projects on public lands, where state or Federal facility management plans or integrated natural resources management plans are used to provide long-term protection, and changes in statute, regulation, or agency needs or mission results in an incompatible use on public lands originally set aside for compensatory mitigation, the public

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

agency authorizing the incompatible use is responsible for providing alternative compensatory mitigation that is acceptable to the permitting authority for any loss in functions resulting from the incompatible use. 3540

- (5) A real estate instrument, management plan, or other long-term protection mechanism used for site protection of permittee-responsible mitigation must be approved by the permitting authority in advance of, or concurrent with, the activity causing the authorized impacts.
- (b) Sustainability. Compensatory mitigation projects shall be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context will support long-term sustainability. Where active long-term management and maintenance are necessary to ensure long-term sustainability (e.g., prescribed burning, invasive species control, maintenance of water control structures, easement enforcement), the responsible party must provide for such management and maintenance. This includes the provision of long-term financing mechanisms where necessary. Where needed, the acquisition and protection of water rights must be secured and documented in the permit_Order conditions or instrument.
- (c) Adaptive management.

- (1) If the compensatory mitigation project cannot be constructed in accordance with the approved mitigation plans, the permittee or sponsor must notify the permitting authority. A significant modification of the compensatory mitigation project requires approval from the permitting authority.
- (2) If monitoring or other information indicates that the compensatory mitigation project is not progressing towards meeting its performance standards as anticipated, the responsible party must notify the permitting authority as soon as possible. The permitting authority will evaluate and pursue measures to address deficiencies in the compensatory mitigation project. The permitting authority will consider whether the compensatory mitigation project is providing ecological benefits comparable to the original objectives of the compensatory mitigation project.
- (3) The permitting authority, in consultation with the responsible party (and other federal, tribal, state, and local agencies, as appropriate), will determine the appropriate measures. The measures may include site modifications, design changes, revisions to maintenance requirements, and revised monitoring requirements. The measures must be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives. 3641
- (4) Performance standards may be revised in accordance with adaptive management to account for measures taken to address deficiencies in the compensatory mitigation project. Performance standards may also be revised to reflect changes in management strategies and objectives if the

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Procedures for Discharges of Dredged or Fill Materials to Waters of the State

new standards provide for ecological benefits that are comparable or superior to the approved compensatory mitigation project. No other revisions to performance standards will be allowed except in the case of natural disasters.

(d) Long-term management.

- (1) The permitOrder conditions or instrument must identify the party responsible for ownership and all long-term management of the compensatory mitigation project. The permitOrder conditions or instrument may contain provisions allowing the permittee or sponsor to transfer the long-term management responsibilities of the compensatory mitigation project site to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager, after review and approval by the permitting authority. The land stewardship entity need not be identified in the original permitOrder or instrument, as long as the future transfer of long-term management responsibility is approved by the permitting authority.
- (2) A long-term management plan should include a description of long-term management needs, annual cost estimates for these needs, and identify the funding mechanism that will be used to meet those needs.
- (3) Any provisions necessary for long-term financing must be addressed in the original permitOrder or instrument. The permitting authority may require provisions to address inflationary adjustments and other contingencies, as appropriate. Appropriate long-term financing mechanisms include non-wasting endowments, trusts, contractual arrangements with future responsible parties, and other appropriate financial instruments. In cases where the long-term management entity is a public authority or government agency, that entity must provide a plan for the long-term financing of the site.
- (4) For permittee-responsible mitigation, any long-term financing mechanisms must be approved in advance of the activity causing the authorized impacts.

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Split/Merged cell			
Padding cell			

Statistics:		
	Count	
Insertions	352	
Deletions	285	
Moved from	27	
Moved to	27	
Style change	0	
Format changed	0	
Total changes	691	